

TREATMENT SYSTEM FOR REMOVING HAZARDOUS SUBSTANCES FROM A
SEMICONDUCTOR PROCESS WASTE GAS STREAM

ABSTRACT OF THE DISCLOSURE

A system for controlling emissions of hazardous, toxic or otherwise undesirable components in a waste gas stream, while maintaining uptime through decreased maintenance and repair, is provided. The system oxidizes the waste gas stream at high temperatures with a thermal oxidizer (110), effectively removes particulates in the waste gas stream as well as moderate levels of acid gas through a cyclone scrubber (120), and removes the remainder of the acid gas content in the waste gas stream through the use of a packed column (130). Finally, a condenser (140) lowers the moisture content of the waste gas stream before leaving the system by way of a blower (150), reducing the chance of condensation and corrosion in the facility ductwork. As a result, the system can run for sustained periods of time, reducing downtime in semiconductor operations and associated loss of revenue.